

SOCIAL SECURITY ADVISORY BOARD

Forum on Implications of Raising the Social Security Retirement Age

**May 1999
Washington, D.C.**

Social Security Advisory Board

An independent, bipartisan Board created by Congress and appointed by the President and the Congress to advise the President, the Congress, and the Commissioner of Social Security on matters related to the Social Security and Supplemental Security Income programs.

Table of Contents

Participants in the Forum	ii
Overview	iii
I. Introduction	1
II. Should the Retirement Age be Raised Further?	2
A. Changes in the Retirement Age Already in the Law	2
B. Positive Consequences of Raising the Retirement Age Further	2
C. Negative Consequences of Raising the Retirement Age Further	4
D. Implications of Raising the Normal Retirement Age	6
E. Implications of Raising the Early Retirement Age	6
III. Trends in Retirement Behavior	8
A. U.S. Experience	8
B. Trends in Other Countries	11
IV. Would Individuals Work Longer if We Raised the Retirement Age Further?	12
A. Factors that Influence the Retirement Decision	12
B. Evidence that Taxes and Benefits Matter to Older Workers	14
V. Effects of Raising the Retirement Age on OASDI Financing	15
A. Estimates from the SSA Actuaries	15
B. Estimates from Stochastic Modeling	16
VI. Conclusion	19
References	20
Biographical Information on Participants	21
The Social Security Advisory Board	28

This document was prepared by the staff of the Social Security Advisory Board

Participants in the Forum

“Implications of Raising the Social Security Retirement Age”

Richard Burkhauser
Gary Burtless
Leora Friedberg
Jonathan Gruber
Mark Hayward
Diane Macunovich
Rudolph Penner
Joseph Quinn
John Rust
Dallas Salisbury
Andrew Samwick
Eugene Steuerle
Lawrence Thompson
Shripad Tuljapurkar
David Walker
Carolyn Weaver
John Wilkin

October 13, 1998

Sponsored by the Social Security Advisory Board

Overview:

Implications of Raising the Social Security Retirement Age

Many plans to reform Social Security include a proposal to raise the normal retirement age faster or higher than changes already in the law, and some would raise the early retirement age as well. The implications of such proposals need to be examined if policy makers are to have the information they need to evaluate the impact of those proposals on individuals and employers.

This paper discusses some of the issues associated with raising the normal retirement age and the early retirement age. It is based on a forum sponsored by the Social Security Advisory Board on October 13, 1998. Seventeen experts in the field of Social Security and labor market issues explored various aspects of raising the Social Security retirement age.

Policy makers will have to decide how they should respond to the Nation's aging workforce. As discussed by Lawrence Thompson and Rudolph Penner at the forum, the retirement of the baby boomers beginning in about 2010 will bring an expected decline in the labor force relative to the total population and a predicted shortfall in financing for the Social Security system. Two factors could exacerbate these trends: the growing number of years in retirement as people live longer and the falling number of years in work as people retire earlier. It is difficult for an economy to support a larger portion of the population in retirement with a shrinking portion of the population in the workforce. On the other hand, some people are unable to work beyond the current early retirement age of 62, suggesting that those individuals would be especially hard hit if the retirement age were increased above the age currently specified in law.

Evidence from the United States and from a number of other countries suggests that the trend to retire at earlier ages has been widespread over the 20th century. Jonathan Gruber presented evidence from eleven countries showing declining labor force participation of older people. But at least in the United States, that trend seems to have stopped in about 1985, as documented in the paper by Joseph Quinn. A combination of changes in public policy stances, private pension rules, and individual attitudes toward work at older ages may be responsible for the halt in the falling age of retirement.

An important question concerns how people would respond to an increase in the early retirement age and/or a further increase in the normal retirement age beyond the slow rise to age 67 already in the law. While direct evidence on this question does not exist, it is possible to examine how people respond to the level of their retirement wealth and to changes in that wealth as they work one more year. Social Security wealth and pension wealth are both components of retirement wealth. Any increase in the normal retirement age is equivalent to a reduction in the amount of benefits expected from Social Security, and hence reduces a person's Social Security wealth. Andrew Samwick's paper shows that two factors are

especially important in explaining the timing of retirement. The first is the incremental value of working another year. Many people with pension coverage choose to retire when the increase in the value of pension wealth gained by working another year begins to decline considerably. The second factor is the total value of wealth in pensions and Social Security.

Other evidence that taxes and benefits are a factor in determining employment activity of older workers comes from a study that looks at how people respond to the Social Security earnings test. Under the earnings test, Social Security benefits are withheld when a beneficiary under age 70 has earnings in excess of the exempt amount specified under the earnings test. Separate exempt amounts apply for beneficiaries under the normal retirement age (currently age 65) and for beneficiaries at that age through age 69. Leora Friedberg's paper asks to what extent older workers adjust their earnings in response to changes in the earnings test limit. Unlike some previous work on this topic, her paper finds a considerable response among older workers. One strong result is that the earnings of many older beneficiaries who work tend to bunch just below the earnings threshold, and the bunching shifts when the earnings test rules change.

Another important aspect of raising the retirement age concerns the effect on the long-term Social Security deficit. The actuaries at the Social Security Administration have calculated the likely effects using their standard high-, intermediate-, and low-cost assumptions, but some modelers have criticized the methodology as being only one approach to modeling what could happen in the future. Shripad Tuljapurkar's paper uses a stochastic model in which variables such as mortality, fertility, the rate of interest, and real wage growth vary according to historic trends. The stochastic model is calibrated to the SSA actuaries' intermediate path, but it generates a range of possible outcomes in each future year rather than a single outcome. The model is then used to analyze effects on Trust Fund solvency arising from four variations on how fast and how far the retirement age is raised. According to his model, the probability that raising the retirement age will have a significant effect on the long-term Social Security deficit does not change much unless the retirement age rises quickly and sharply. In the particular scenario analyzed, raising the normal retirement age to 71 by 2022 leads to a significant reduction in long-term risks of insolvency.

Implications of Raising the Social Security Retirement Age

I. Introduction

As a result of the Social Security amendments of 1983, the normal retirement age, or the age at which workers are eligible to receive full Social Security retirement benefits, is already slated to rise gradually from age 65 to age 67, beginning in 2000. Many proposals that address the long-term financing problem in Social Security would raise the retirement age even further. Some accelerate the increase to age 67, while others extend the retirement age to 68 or 70. And some proposals would raise the early retirement age, now 62, as well as the normal retirement age. The early retirement age has a significant influence on when people choose to stop working. Raising the normal retirement age would help the financing shortfall in the Social Security program as well as reduce the burden on workers of supporting the growing proportion of the population that is retired. Raising the early retirement age, on the other hand, would help only a little in addressing the Social Security financing problem.

Neither the American public nor policy makers support higher retirement ages without reservation. A recent poll conducted on behalf of Americans Discuss Social Security found that nearly three-quarters of Americans, or 74 percent, oppose hiking the normal retirement age to 70.¹ Forty-seven percent of the public oppose raising the early retirement age. Such responses are not surprising given that most now retire by age 65. Indeed, the age at which half of the population is out of the labor force now stands at about 62. Policy makers are concerned that some proportion of individuals in the age range 62 to 70 would find it extremely burdensome if not impossible to continue to work due to health restrictions. And whether jobs would be available to larger numbers of older workers remains an unanswered question.

This paper is based on the first of a series of forums sponsored by the Social Security Advisory Board on the implications of raising the Social Security retirement age. The first forum was held on October 13, 1998. It included discussion of policy aspects of raising the retirement age; recent retirement behavior; Social Security and retirement around the world; evidence on the factors that influence retirement behavior, including work after starting to collect retirement benefits; and analysis of how raising the retirement age might affect the long-term financing of Social Security.

¹ Americans Discuss Social Security, "Making Hard Choices: Public Opinion on Options for Social Security," conducted by Princeton Survey Research Associates on behalf of Americans Discuss Social Security, available on www.americansdiscuss.org/poll_data/policyrpt.html, September 1998.

II. Should the Retirement Age be Raised Further?

A. Changes in the Retirement Age Already in the Law

In 1983, the law regarding the normal retirement age for future retirees was changed. Beginning in the year 2000, new retirees will not receive full benefits from Social Security unless they delay retirement by a few months or years. For example, those who are 62 in the year 2000 will have to wait until they are 65 and 2 months to get full benefits. Those who are 62 in 2005 will not get full benefits until age 66, and those who are 62 in 2022 will not receive full benefits until age 67. Under current law, the early retirement age remains at age 62, and no further increases in the normal retirement age beyond 67 will take place.

B. Positive Consequences of Raising the Normal Retirement Age Further

Raising the retirement age often is proposed as one component of a package to improve the long-term funding status of the Social Security Trust Funds. According to the 1999 Report of the Trustees of the Old-Age, Survivors, and Disability Insurance Trust Funds (hereafter called the 1999 Trustees' Report), the program faces a long-range shortfall in funding equal to 2.07 percent of taxable payroll over the 75-year estimating period. That shortfall is equivalent to about \$3 trillion in 1998 dollars. In other words, payroll taxes would have to rise immediately to about 7.25 percent of payroll for both employees and employers to cover the projected 75-year shortfall. Future additional taxes would be required to assure the program's solvency beyond the 75-year time frame.

The shortfall in funding appears relatively soon and worsens over time. Without any changes in taxes or benefits, the Trustees' Report projects that Social Security expenditures will be higher than income from the payroll tax beginning in 2014. At that time, an amount equal to all of the tax income and a part of the interest due to the Trust Funds on outstanding bonds will be needed to pay the benefits that are due. By 2034, the Trust Funds are gone and income to Social Security will support less than three-fourths (71 percent) of the promised benefits. That percentage falls to only about two-thirds by 2070 and likely will continue to fall thereafter.

Speeding up the increase in the normal retirement age would help solve at least part of the financing problem. Present law phases in an increase in the normal retirement age to 67 for those who turn that age in 2027. Speeding up this increase so that it is fully in effect for those who turn age 67 in 2016 would eliminate 5 percent of the deficit.² Further increasing the age to 68 by indexing at a rate of 1 month every 2 years, reaching 68 for those who turn that age in 2040 (in addition to speeding up the increase to age 67) would eliminate about 18 percent of the deficit. A further increase by indexing to age 70 would eliminate 22 percent of the shortfall.

²All estimates of reform proposals are based on assumptions in the 1998 Trustees Report.

Raising the retirement age further would also stop or slow the increase in the ratio of a person's years spent in retirement relative to the years spent working. While such a change would not be popular from the point of view of many, others would argue that it makes sense from a policy perspective. For example, a 20-year-old worker in 1940, when Social Security was a new program, could expect to live 8.3 years after age 65. For that worker, the ratio of expected years in retirement to working years was about 21 percent (see Table 1). Under the assumptions of the SSA actuaries, those who are age 20 in the year 2000 are expected to live 14.6 years beyond age 65. For those workers, the ratio of retirement years to working years has risen to about 34 percent, on average. The normal retirement age would have to rise to age 71 to maintain the ratio at 21 percent. By 2060, those who are age 20 can expect to live 17.7 years after age 65, raising the ratio to 41 percent. The retirement age would have to be 73 to maintain the 1940 ratio of retirement years to working years.

Table 1. Retirement Age Required to Maintain Same Ratio of Expected Years in Retirement to Potential Working Years as for Workers in 1940, Using Life Expectancy at Age 20

	Worker age 20
1940	
Expected years in retirement	8.3 yrs.
Ratio of retirement years to working years if retire at 65	21%
Retirement age required to maintain 1940 ratio	age 65
2000	
Expected years in retirement	14.6 yrs.
Ratio of retirement years to working years if retire at 65	34%
Retirement age required to maintain 1940 ratio	age 71
2060	
Expected years in retirement	17.7 yrs.
Ratio of retirement years to working years if retire at 65	41%
Retirement age required to maintain 1940 ratio	age 73.1

Source: Memo by Alice Wade, Office of the Chief Actuary, SSA, 3/31/98

In light of rising longevity, some have suggested indexing the retirement age to maintain some fixed ratio of retirement years to working years. Others suggest indexing the retirement age to maintain a constant aged dependency ratio, or the ratio of those of working age to those of retirement age. As discussed at the forum, policy choices that can reduce the sensitivity of the system to wide swings in demographics and other factors could be useful in smoothing the future path of a program like Social Security.

From the perspective of the national economy, older workers may be needed to fill jobs in the coming decades.³ The growth of the labor force is expected to slow considerably in the next century, reversing the bulge in the workforce that occurred when the baby boomers entered the workforce in the 1970s and 1980s. As the baby boomers leave the workforce over the next few decades, the economy will feel the effects of losing a substantial number of highly trained and experienced workers. Those who are willing to stay on in some capacity could be in high demand.

Moreover, at least some older people may need to work to keep up their standard of living. Any decline in Social Security wealth arising from benefit cuts to finance the Social Security program could induce older people to increase their work effort. For example, an increase in the normal retirement age to 70 while maintaining the early retirement age at 62 would imply a 40 percent reduction in benefits for those who retire at age 62. Facing such a reduction in benefits might lead some people to postpone retirement, increase their own saving for retirement, or both.

Finally, the age at which Social Security benefits are available may be an important signal to workers about the appropriate time to retire. As discussed at the forum, knowing that early retirement benefits are available at age 62 may cause some workers to plan for retirement at that age, even though they continue to have valuable skills and are able to work. The same may be true for those who work up to age 65. The fact that the Social Security program deems age 65 to be the “normal” retirement age may influence decisions about when to retire and at what age people consider themselves to be old. Raising those retirement ages could send a strong message to workers about society’s view of the appropriate retirement age.

C. Negative Consequences of Raising the Normal Retirement Age Further

While raising the retirement age would help to reduce the Social Security financing shortfall, the objections that are raised to increasing the retirement age further are important to consider. Some individuals will be unable to work beyond 65 or beyond the current early retirement age of 62 for health reasons. Those who retire at ages below the new normal retirement age, whether voluntarily or involuntarily, would face a cut in benefits that would persist throughout their remaining years. When the normal retirement age is 65, the cut in benefits at age 62 is 20 percent. That reduction rises to 30 percent when the normal retirement age is 67. As noted above, it would rise to 40 percent if the normal retirement age were raised to age 70.

³ Comments of Rudolph Penner at the Social Security Advisory Board Forum, “Implications of Raising the Social Security Retirement Age,” October 13, 1998.

Many are concerned that some proportion of those ages 62 and above are physically unable to continue working, and that the proportion rises as people age. For example, one research paper estimates that 19 percent of men and 18 percent of women at age 67 in 1993 were unable to work.⁴ While the researchers found that these percentages had dropped from 25 percent of men and 24 percent of women in 1982, their findings show that a substantial portion of those who are age 67 would still find working difficult, if not impossible. According to the Health and Retirement Survey, 14 percent of respondents ages 51 to 62 in 1992 reported their health to be only fair or poor. That percentage rose to 16 percent in 1994 when those respondents were ages 53 to 63.⁵

Lower Social Security benefits caused by an increase in the normal retirement age are likely to affect low income households more severely than high income households. As noted by Lawrence Thompson in remarks at the forum, cuts in Social Security benefits disproportionately affect the household income of those in the lowest quintiles of the income distribution. For example, households in the lowest two quintiles receive 80 percent of their income from Social Security while those in the top quintile receive just 21 percent of their income from Social Security. A reduction of 13.8 percent of Social Security benefits would reduce the household income of those in the lowest quintile by about 11 percent, but reduce household income of those in the highest quintile by only 3 percent.⁶ According to Thompson's analysis, such a reduction in Social Security benefits would likely increase the number of individuals with retirement income below the poverty level.

Moreover, whether the skills of the older workers will match the requirements of the job openings remains to be seen. As discussed at the forum, some of those who need to work at older ages may not have the skills and experience required.

Finally, public opinion polls suggest that raising the retirement age would not be popular with most individuals, although that opposition becomes less strenuous when people are faced with choices about how to control costs. As previously noted, about three-quarters of the American people are opposed to raising the normal retirement age to 70. But when forced to choose between raising the retirement age or cutting Social Security benefits, 54 percent of Americans say that avoiding any reductions in Social Security benefits is the top priority.⁷ About a third (32 percent) say avoiding an increase in the retirement age should be the top priority.

⁴ Eileen M. Crimmins, Sandra L. Reynolds, and Yasuhiko Saito, "Trends in Health and Ability to Work among the Older Working-Age Population," *Journal of Gerontology*, Vol. 54 B, No. 1, 1999, S31-S40, Table 6.

⁵ As cited in Debra S. Dwyer and Jiangting Hu, "The Relationship between Retirement Expectations and Realizations: The Role of Health Shocks in Unrealized Expectations," paper presented at the 1998 Pension Research Council Symposium, "Forecasting Retirement Needs and Retirement Wealth," April 1998.

⁶ Thompson assumed that the average worker who now retires at age 63 and 4 months would choose to retire 5 months later once the normal retirement age has risen to age 67. For that worker, benefits would be cut 13.8 percent.

⁷ Americans Discuss Social Security, "Making Hard Choices: Public Opinion on Options for Social Security," conducted by Princeton Survey Research Associates, on www.americansdiscuss.org/poll_data/policyrpt.html, September 1998.

D. Implications of Raising the Normal Retirement Age

As previously noted, raising the normal retirement age would have a favorable effect on the financing status of the Social Security Trust Funds. The program cost savings arise because people would either delay claiming benefits until they reach the normal retirement age or would receive lower benefits if they choose to retire before the normal retirement age. In both cases, the total benefits received would be lower than they would be under the current system whenever they retire.

If the early retirement age remained at 62 while the normal retirement age increased beyond 67, the benefit cut for those who choose to retire at age 62 would be substantial. Benefits are reduced in an actuarially fair way so that the present value of expected Social Security benefits does not change for the average person, regardless of whether he or she begins to receive benefits at age 62 or at the normal retirement age. For example, if the normal retirement age increased to age 70, the benefit cut for those who claimed benefits at age 62 would be 40 percent. Because some proportion of those who choose to retire at age 62 are in poor health and have low incomes, that benefit cut could push them into poverty or lead to an increase in applications for Disability Insurance. The possibility of falling into poverty would increase over time in particular for those whose other sources of income decline as a percentage of total income as they age. As a result, at least one plan that advocates gradually raising the normal retirement age to 70 also raises the early retirement age to 65.⁸

Raising the normal retirement age could also have implications for the federal budget outside of Social Security because of interactions with other federal programs. For example, the Supplemental Security Income program, or SSI, is a nationwide federal assistance program that guarantees a minimum level of income for needy aged, blind, or disabled individuals. Under current law, the minimum age limit for assistance based on age is 65. If the normal retirement age for Social Security rose to 70 without an increase in the early retirement age, more of the elderly would likely qualify for SSI because those who chose to retire at 62 would receive just 60 percent of their full Social Security benefits for the rest of their lives. Hence the costs of the SSI program would likely rise.

E. Implications of Raising the Early Retirement Age

Many policy analysts argue that unless the early retirement age is increased, people will not change their work behavior and will continue to retire at relatively young ages. As life expectancies continue to grow, the ratio of retirement years to working years is likely to continue to rise. Future workers will be called on to support a growing proportion of the population in retirement. If people were encouraged to work beyond age 62, however, the productive capacity of the economy would increase, making it easier to support more retirees. However, raising the early retirement age would help only a little in solving the financing problem of Social Security.

⁸ National Commission on Retirement Policy, "The 21st Century Retirement Security Plan," May 19, 1998.

Those who advocate raising the early retirement age stress that people are now living longer and healthier lives than people who lived at the time when the early retirement age for Social Security was first established.⁹ At the same time, however, people are retiring at younger ages than they did 30 or 40 years ago, perhaps partly in response to disincentives to work at older ages in the Social Security and employer pension systems. If the Nation is to have the resources needed to support a larger proportion of the population in retirement, there will have to be less consumption and more provision for the retirement years. Either increased saving by workers in preparation for retirement or larger transfers from workers to the elderly would result in lower consumption by workers and more resources allocated to the retirement years.

Those who object to raising the early retirement age are concerned about those who are unable to work beyond age 62. A recent study by the Congressional Budget Office found that roughly one in 10 people who took Social Security benefits at age 62 in the early 1990s had non-Social Security income below the poverty threshold and also claimed that they had a work-limiting disability.¹⁰ Unmarried persons, especially women and non-whites, have lower levels of income and wealth and would be hard hit by cuts in Social Security benefits.¹¹ But such findings suggest that not all of those who retire at age 62 are in poor health or have low income. Another study found that those who choose to retire at 62 tend to be about as well off as those who postpone benefits.¹² While some of them are in poor health and have low incomes, others are in good health, are covered by private pension plans and choose to retire early because they can afford to do so. Some advocate making special provision in the disability programs to accommodate those who cannot work if the early retirement age is increased. Others might advocate lowering the eligibility age for the SSI-aged program from 65 to 62.

Poll results show that Americans are more split on raising the age for reduced early retirement benefits than on raising the normal retirement age. The poll conducted for Americans Discuss Social Security shows that 74 percent of the public oppose raising the normal retirement age. When asked about raising the early retirement age 47 percent of the public favor raising it, while 47 percent oppose it. But those in the age group 50 to 64 who would most likely be hit by the change oppose the rise by a 53-43 margin. Income matters as well – those making less than \$20,000 a year oppose the change by a 50-43 edge.

⁹ The early retirement age of 62 was first enacted for women in 1956. In 1961, it was enacted for men as well.

¹⁰ Congressional Budget Office, "Raising the Earliest Eligibility Age for Social Security Benefits," CBO Papers, January 1999.

¹¹ Cori E. Uccello, "Factors Influencing Retirement: Their Implications for Raising the Retirement Age," AARP Public Policy Institute Paper #9810, October 1998.

¹² Richard Burkhauser, Kenneth A. Couch, and John W. Phillips, "Who Takes Early Social Security Benefits? The Economic and Health Characteristics of Early Beneficiaries," *The Gerontologist*, Vol. 36, No. 6, 1996, 787-799.

Increasing the early retirement age helps the long-term financing shortfall of the OASDI system only slightly, although increasing the size of the labor force by encouraging people to work longer would be beneficial for the economy as a whole. The reason why raising the early retirement age helps the financing shortfall only a little in the long run is as follows. Those who choose to retire at the early retirement age receive lower benefits throughout their lifetimes. The reduction is designed to be actuarially fair such that the total value of benefits received over the expected lifetime is about equal, on average, to that received by a person who chooses to retire at the normal retirement age.¹³ Thus, raising the early retirement age would eliminate only a small portion of the financial shortfall facing Social Security.

III. Trends in Retirement Behavior

A. U.S. Experience

The trend toward retiring at younger ages has been ongoing in the United States at least since the turn of the century. At that time, two out of three men past age 65 were employed.¹⁴ By mid-century, fewer than half of men age 65 or older held a job. And just 16 percent of men over age 65 were employed or were looking for a job by 1990.

After many years of decline, however, the trend toward retiring at younger and younger ages has ended, at least for now. Between 1964 and 1985, the rate of labor force participation of men ages 60 to 64 in the United States fell from almost 80 percent to about 57 percent. But since 1985, the participation rate of men ages 60 to 64 has changed little and has even risen modestly during the past several years, as documented in a forum paper by Joseph Quinn.¹⁵ The participation rates of females of the same age have actually increased since 1985 as younger cohorts continue to have an increasing presence in the workplace. Similarly, the median age at retirement – the age at which half of the population is out of the labor force – has declined for men from 70 in 1950 to 65 in 1970 and to 62 by 1985, but has not changed much since then (see Table 2).

To illustrate the change in the trend that occurred in the mid-1980s, Quinn plotted the actual rates of labor force participation for men ages 60 to 64 for the years 1964 to 1998 against a linear extrapolation of the trend that existed between 1964 and 1985 (see Figure 1). The actual rates are higher than the pre-1986 trend would have predicted and clearly show the change in trend. Participation rates for older women since 1985 are higher than pre-1986 trends would have predicted as well.

¹³ It is true that if a person stops working before age 65, the Social Security system forgoes the payroll taxes that would have been paid on the worker's earnings past age 62, if he or she had continued to work. But for persons who would have remained at their full-time career jobs, the primary insurance amount, or the benefit that would have been paid at age 65 based on the top 35 years of earnings, is likely to be smaller. Not working beyond age 62 implies that higher earning years do not replace earlier lower earning years. For those who stop working before the normal retirement age, lower tax receipts approximately offset the lower benefit level over the retirement years (per conversation with Alice Wade, SSA).

¹⁴ Discussion by Gary Burtless at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998.

¹⁵ Joseph F. Quinn, "Retirement Patterns and Bridge Jobs in the 1990s," paper presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998, and EBRI Issue Brief No. 206, February 1999.

**Table 2. Labor Force Participation Rates for Males by Age, 1950 to 1997
(in percent)**

Year	Age 62	Age 65	Age 70
1950	81.2	71.7	49.8
1960	79.8	56.8	37.2
1970	73.8	49.9	30.1
1975	64.4	39.4	23.7
1980	56.8	35.2	21.3
1985	50.9	30.5	15.9
1990	52.5	31.9	17.1
1995	51.3	33.5	20.6
1997	52.6	32.4	21.7

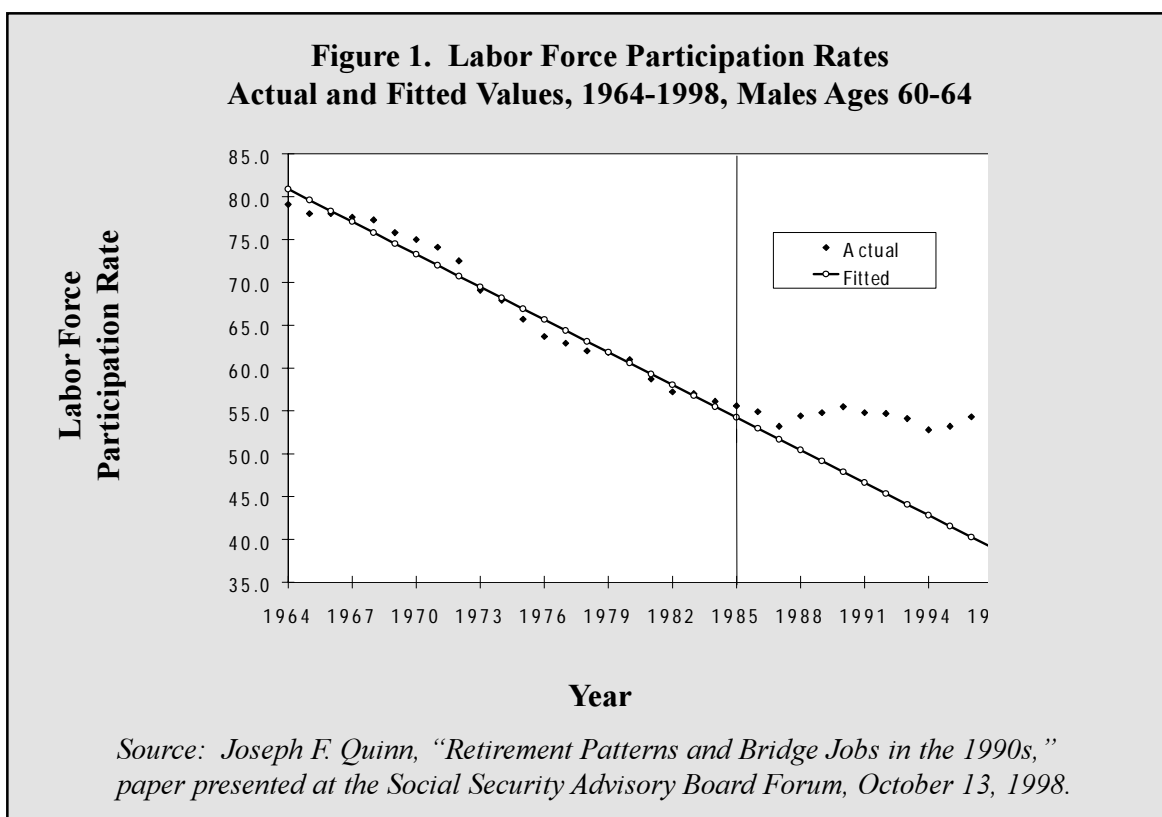
Source: Joseph F. Quinn, "Retirement Patterns and Bridge Jobs in the 1990s," paper presented at the Social Security Advisory Board Forum, October 13, 1998.

Quinn explains the end of the decline in labor force participation at older ages by pointing to several economic factors. During the 1960s and 1970s, increasing household wealth allowed Americans to spend more time out of the workforce by retiring early. Those wealth gains came from rising real wages as well as a robust real estate market and large unanticipated increases in real Social Security benefits. Quinn believes that incentives to retire by age 65 stemming from Social Security, employer pension rules and Medicare also influence the decision of when to stop working. Several recent research papers attribute various levels of importance to the role of changes in employer pensions and Social Security. But economic factors are less helpful in explaining why the trend to earlier retirement stopped in the mid-1980s.

To explain the change in retirement behavior since 1985, Quinn turns to two types of explanations – trend explanations and cycle explanations. The trend hypotheses emphasize permanent change in the retirement environment that encourage additional work by older Americans. Eliminating mandatory retirement, higher exempt amounts before the earnings test for Social Security benefits kicks in, and increases in the delayed retirement credit for Social Security benefits all help to make the work environment more attractive for older workers. The private sector has seen some important changes as well. The traditional defined benefit plan, in which benefits are based on the worker's earnings and years of service and age-specific incentives to leave the work force are common, is becoming relatively less prevalent than defined contribution pension plans. Under defined contribution plans, the pension depends on the amounts contributed to the account, the investment returns on those contributions, and the length of time those funds can accumulate. Defined contribution plans carry no particular benefit to retiring at a certain age.

The second set of explanations – the cycle explanations – argue that the strong American economy has temporarily delayed the long-term decline in elderly participation rates. Low unemployment rates induce older workers to work longer because strong labor demand creates employment opportunities. Quinn evaluated the cycle explanation using econometric techniques, and found that while the strong economy is important in keeping older workers in the labor force, it does not provide the entire explanation.

In order to explain much of the change in retirement behavior that occurred in the mid-1980s, Quinn points to changes in the attitude toward work late in life. He maintains that the change in attitude was precipitated by the public policy initiatives discussed above in addition to shifts in the composition of jobs from manufacturing to less arduous service occupations and the improved health conditions of older workers.



Many older workers may not want to continue working fulltime on their career jobs but would prefer to take on part-time jobs or become self-employed, perhaps in new lines of work. Indeed, Quinn presents evidence showing that at least one-third of men in the Health and Retirement Survey who had left their career jobs by 1996 (roughly ages 55 to 65) worked at a “bridge job” between career employment and complete labor force withdrawal.¹⁶

¹⁶ The Health and Retirement Survey is a multi-purpose social science survey conducted by the Survey Research Center at the University of Michigan and funded by the National Institute on Aging. The first wave of the survey was conducted in 1992/1993. Respondents were re-interviewed in 1994 and 1996 and will be re-interviewed at two-year intervals in the future.

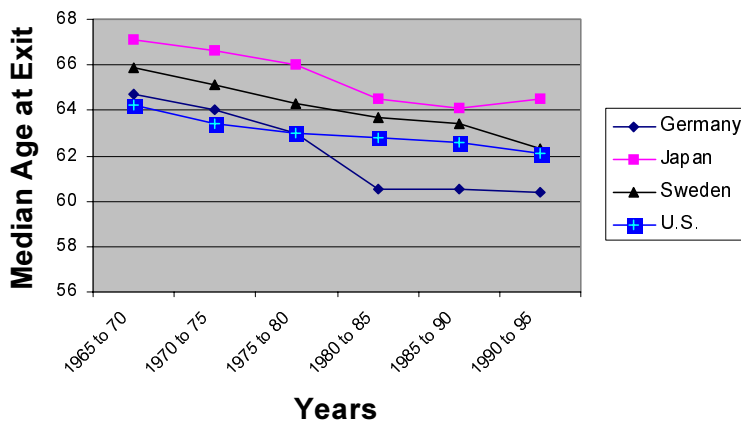
In many cases, bridge jobs offer lower pay and fewer benefits. Quinn defines a bridge job as a full-time job that lasts less than ten years or a part-time job of any duration, while career employment is defined as a full-time job lasting ten years or more. For women in the same survey who had left their career jobs by 1996, an even greater percentage participated in bridge jobs. Quinn estimates that at least 45 percent of women participated in bridge jobs before retiring completely. Part-time jobs are more likely for the women in bridge jobs than for the men.

If the definition of a bridge job is limited to full-time jobs that last five years or less as well as part-time jobs of any duration, the extent of bridge activity drops about 20 percent. But even under that more severe definition, more than a quarter of the men and more than a third of the women pass through a bridge job late in life.

B. Trends in Other Countries

Many countries have experienced a decline in the labor force participation rates of older people in recent decades, and in many of them the decline has been much greater than in the United States. As shown in Figure 2, the median age at the time of exit from the labor force for men has fallen significantly in four major economies since 1965. The median age at the time of labor force exit represents the age at which half of men are still in the labor force while half are out of the labor force. In the 1965-70 period, for example, half of German men age 65 were out of the labor force while half were still working. In the 1990-95 period, the age at which half of German men were in the labor force and half were out of the labor force had dropped almost 5 years. Over the same time periods, the drop in the median age at labor force exit in the United States was only about 2 years, from about age 64 to about age 62.

Figure 2. Trends in the Median Age at Labor Force Exit of Older Men in Germany, Japan, Sweden, and the United States, 1965-70 to 1990-95



Source: Murray Gendell, "Trends in Retirement Age in Four Countries, 1965-1995," *Monthly Labor Review*, August 1998, pp.20-30.

At the forum, Jonathan Gruber described his recent paper co-authored with David Wise that pulls together evidence from eleven countries on the labor force participation rates of older men and women.¹⁷ Gruber presented data showing that participation rates of men ages 60 to 64 were above 70 percent in each of the countries in the early 1960s. By the mid-1990s, that rate had fallen dramatically to below 20 percent in Belgium, Italy, France, and the Netherlands. It had fallen to about 35 percent in Germany and 40 percent in Spain. Both Sweden and the United States had rates around 55 percent, while Japan's rate was still as high as 75 percent.

The reasons behind the decline in participation rates have not yet been fully explored, but the preliminary analysis by the authors suggests that incentives built into the social security system play an important role. Two features seem to be especially important. The first is the early retirement age, or the age at which benefits are first available. The evidence shows that the early retirement age tends to be much more important than the normal retirement age in determining when people actually retire. The second important feature is the pattern of benefit accrual, or how social security wealth evolves with continued work. In countries where continued work above a certain age implies a loss in lifetime pension benefits, workers have a strong incentive to leave the labor force and generally do so.

Other government and private programs may affect the relationship between social security plan provisions and observed retirement patterns. The availability of employer-provided pension plans and the programs that provide unemployment and disability insurance may have strong effects when combined with social security plan incentives. In some countries, the incentive effects were put in place for the explicit purpose of creating jobs for younger people. But the incentives may not be fully understood in all countries.

IV. Would Individuals Work Longer if We Raised the Retirement Age Further?

A. Factors that influence the retirement decision

If we are to understand how retirement behavior would change in response to a change in the normal retirement age or early retirement age, we must first try to explain why people choose to retire when they do under the current set of rules. As discussed at the forum, many factors outside of financial incentives are likely to influence retirement decisions, such as health, the work status and health of a spouse, particular job circumstances, peer pressure, and the like. Many people may have to work out of economic necessity if they have no other source of support. And the fact that health insurance is available through work may be a key factor for many workers. But financial incentives associated with Social Security and private pensions are expected to influence retirement decisions to some degree for most people.

¹⁷ Jonathan Gruber and David A. Wise, "Introduction and Summary," in *Social Security Programs and Retirement Around the World*, edited by Jonathan Gruber and David A. Wise, Chicago: The University of Chicago Press, 1999.

Researchers are often limited by the available data in exploring economic factors that explain retirement decisions. In order to get a complete picture of a household's circumstances, one needs to know about Social Security benefits, private pension benefits, private saving resources, and household financial information such as mortgage and credit card debt.

A recent research paper by Andrew Samwick uses the 1983 Survey of Consumer Finances, a nationally representative survey that contains detailed information about the pension plans associated with each individual in the survey, combined with information on Social Security taxes and benefits.¹⁸ Samwick measures the change in wealth accrual in private pensions and Social Security derived from working another year to explain the timing of retirement. He finds that while changes in pension wealth from one year to the next can be highly variable, the same is not true for changes in Social Security wealth from one year to the next (see Table 3). Theory suggests that people would choose not to retire in a year in which their pension wealth would increase greatly if they continued to work. The paper tests that theory.

The results show that both the incremental value of working another year and the total value of wealth in pensions and Social Security are important factors in explaining the timing of retirement. The tests are not as precise as one would like because the number of individuals in the survey with complete data is limited, yet the importance of wealth accruals in pensions and Social Security is clear.

**Table 3. Pension and Social Security
Wealth and Accruals in 1983 (in dollars)**

Full Sample	Mean	Median	Standard Deviation
Social Security Wealth	47,018	46,437	25,551
Social Security Accrual	-805	-544	2,111
Pension Wealth	29,710	0	63,330
Pension Accrual	956	0	9,767
Earnings	22,028	17,440	25,571
Financial Assets	58,132	8,986	355,771
Housing Net Equity	58,931	46,506	95,136

Note: The mean represents the average value and the median represents the value at which half the observations are above and half are below. The standard deviation gives a measure of the variation.

Source: Andrew A. Samwick, "New Evidence on Pensions, Social Security, and the Timing of Retirement," paper presented at the Social Security Advisory Board Forum, October 13, 1998.

¹⁸ Andrew A. Samwick, "New Evidence on Pensions, Social Security, and the Timing of Retirement," paper presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998, and in *Journal of Public Economics*, Vol. 70, November 1998, 207-236.

In simulations using the model, Samwick finds that increasing the normal retirement age from 65 to 67 would be likely to reduce the probability of retirement by about one percentage point, a small effect. That change in the normal retirement age has about the same effect on the probability of retirement as a 20 percent reduction in the Social Security primary insurance amount at all ages. Expanding defined benefits pension coverage to all workers would raise the probability of retirement by about five percentage points – a fairly substantial effect arising from a huge change in incentives.

The model does have some limitations. Samwick acknowledges that the model severely underpredicts the probability of retirement at age 62, suggesting that factors other than financial ones are at work. He suggests that lack of access to wealth prior to age 62 or a strong signal from the government about the appropriate retirement age being 62 may be responsible for the sharp spike in retirements at that age. Samwick also points to the interaction between Social Security features and private pension plan features in determining when people decide to retire.

B. Evidence that taxes and benefits matter to older workers

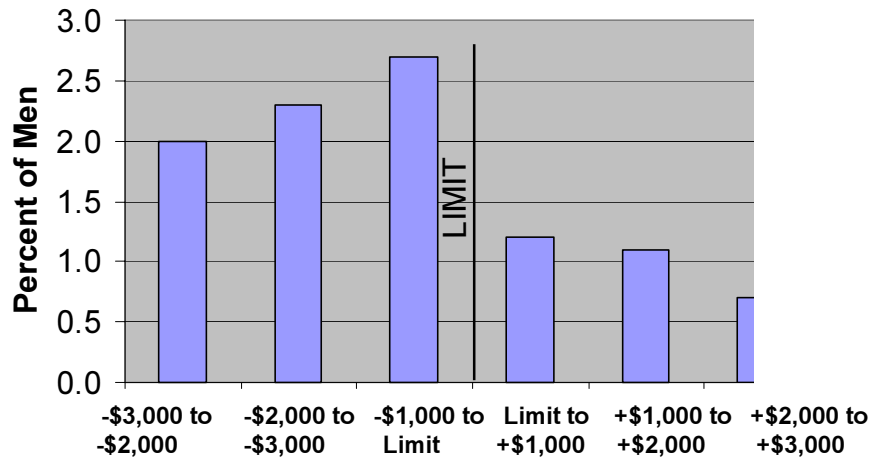
We have no direct evidence on how older workers might respond to increasing the normal retirement age, but we can observe how they respond to current taxes on work or benefit reductions based on earnings for those ages 62 through 69. The current Social Security earnings test reduces Social Security benefits for older workers once earnings pass a threshold amount. In 1999, the earnings test will take away \$1 in benefits for every \$2 in earnings above \$9600 for a beneficiary under age 65. For those ages 65 through 69, \$1 in benefits will be withheld for every \$3 in earnings above \$15,500. In effect, these reduced benefits are equivalent to a 50 percent tax on wages for those under 65 and a 33 percent tax on wages for those ages 65 through 69.¹⁹

If older workers respond to those tax rates on continued work, they might also respond to economic incentives that make it worthwhile for them to continue to work. Leora Friedberg presented a paper at the forum in which she investigates the work response to past changes in the Social Security earnings test.²⁰ The data demonstrate that a number of older workers are clustered with earnings just at or below the earnings exempt amount (see Figure 3). Such behavior implies that the earnings test leads some beneficiaries to hold down their labor supply. In addition, the bunching moves when the exempt amount moves and disappears when the earnings test is eliminated. Such responses are important in light of the legislated increase in the normal retirement age that will cause the tighter earnings test rules to affect older workers who are ages 66 and 67. Offsetting that tightening, however, is the scheduled easing in the exempt amount, to \$30,000 in 2002, for those above the normal retirement age.

¹⁹ In fact, benefits forgone are (at least partially) made up later through the delayed retirement credit. But many people behave as if they do not understand the delayed credit.

²⁰ Leora Friedberg, “The Social Security Earnings Test and Labor Supply of Older Men,” in *Tax Policy and the Economy*, Vol. 12, edited by James Poterba, The MIT Press, 1998.

Figure 3. Older Workers With Earnings Close To Earnings Limit, Men Ages 63-64, 1988 - 1989



Source: Leora Friedberg, "The Labor Supply Effects of the Social Security Earnings Test," paper presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998.

V. Effects of Raising the Retirement Age on OASDI Financing

A. Estimates from the SSA actuaries

If the normal retirement age were increased faster than the increases already legislated, how much of the long-term financing problem of Social Security could be resolved? Based on the intermediate assumptions in the 1999 Trustees' Report, the deficit of the Social Security system stands at 2.07 percent of taxable payroll. Present law provides for phasing in an increase in the normal retirement age from the current age 65, reaching 67 for those who turn that age in 2027. Speeding up that increase so that it is fully in effect for those who turn age 67 in 2016 would eliminate 5 percent of the deficit (see Table 4). Further increasing the age to 68 by indexing at a rate of 1 month every two years, reaching 68 for those who turn that age in 2040 (in addition to speeding up the increase to age 67) would eliminate about 18 percent of the deficit. A further increase by indexing to age 70 would eliminate 22 percent of the deficit. Those estimates are based on the assumption that for every full year increase in the normal retirement age, the average age at which people claim Social Security benefits increases by one quarter of a year.

Table 4. Effect of Proposals to Address the Long-Range Solvency Problem

Option	Savings as percent of taxable payroll	Percent of Social Security deficit resolved
Speed up the phase-in of the currently scheduled increase in the normal retirement age to 67	0.11	5
In addition to speeding up the increase to age 67, index the normal retirement age by 1 month every 2 years up to age 68	0.39	18
In addition to speeding up the increase to age 67, index the normal retirement age by 1 month every 2 years up to age 70	0.48	22

Source: Office of the Chief Actuary, Social Security Administration, using the intermediate assumptions in the 1998 Trustees Report, as cited in Social Security Advisory Board, Social Security: Why Action Should Be Taken Soon.

B. Estimates from stochastic modeling

Projections made by the actuaries at the Social Security Administration are based on three different scenarios for the economic and demographic variables that affect the income and outgo of the Social Security system. The low-cost assumptions represent a set of economic and demographic variables that would result in a more favorable outcome for the financing of the Social Security system. The high-cost assumptions represent a set of economic and demographic variables that would result in a less favorable outcome for the financing. And the intermediate-cost assumptions reflect the most likely path of the economic and demographic variables and hence generate the most likely outcome for Social Security financing, according to the actuaries.

But substantial uncertainty surrounds each of those paths. In addition, the combination of negative or positive economic and demographic variables that appears in a particular scenario may be unlikely to be observed in the real world. In order to recognize the uncertainty associated with the scenario approach, a technique known as stochastic modeling builds in

variability around the expected value of each variable in projecting likely outcomes in the future. Shripad Tuljapurkar and co-authors used that technique in estimating how raising the retirement age might affect the dynamics of the Social Security system.²¹

A number of features of raising the normal retirement age determine how the financing of Social Security is affected. Tuljapurkar and co-authors vary the size of the increase, the rate at which the increase is implemented, and the impact of the shift on individuals who choose to take benefits at an age different from the normal retirement age. In addition, they examine how behavior might change in response to an increase in the retirement age. One possible response might be that most workers continue to retire as is now observed, while another might be that most workers choose to retire midway between the previously observed retirement age and the newly legislated retirement age.

The dependency ratio, or the number of people older than the retirement age divided by the number of people between age 20 and the retirement age, is an important factor in influencing the financial status of the Social Security program. According to Tuljapurkar and co-authors, in 2020 the SSA high-low dependency ratios lie within the 95 percent projection range of the stochastic dynamic model. But by 2070, according to their model, the SSA high-low band has a probability of only about 70 percent.

The model is used to analyze five different scenarios by which the retirement age is increased, and the probability of insolvency in the Social Security Trust Funds in the years 2022, 2047, and 2072 (assuming no other changes in program rules) is then reported. Scenario I represents the changes in the normal retirement age currently in the law. Other scenarios speed up the increase, and in some cases raise the normal retirement age above the currently legislated age of 67. In Scenario III, for example, the retirement age rises to 70 by 2033, while in Scenario V the retirement age rises to 71 by 2022. Insolvency is unlikely to occur by 2022 under any of the scenarios, but the probability of insolvency is substantial by 2047 and 2072 (see Table 5).

The probability of insolvency by 2072 is the most resistant to changes in the normal retirement age. Increases in the normal retirement age at the rate of one year in every six calendar years, even if the normal retirement age rises to age 70, have only a modest impact on the long-term probability of insolvency.²² Scenario IV, in which the normal retirement age changes at twice the speed of the current legislation and increases to age 70 by 2018, does reduce the long-term probability of insolvency by nearly 20 percent relative to Scenario II. But only Scenario V, with an ultimate normal retirement age of 71 in 2022, reduces the long-term probability of insolvency below a half to the relatively low value of 0.35.

²¹ Shripad Tuljapurkar, Ronald Lee, and Michael Anderson, "Effects of Changing the Social Security Retirement Age on the Dynamics of the OASDI Program," paper presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998.

²² In the basic scenarios, Tuljapurkar and co-authors use the assumptions of the Social Security actuaries in modeling retirement probabilities. Thus, for every full year increase in the normal retirement age, the average age at which people claim retirement benefits increases by one quarter of a year.

Table 5. Probabilities of Insolvency for Five Scenarios of Changes in the Normal Retirement Age

Probability of insolvency	Scenario I 67 by 2022	Scenario II 67 by 2012	Scenario III 70 by 2033	Scenario IV 70 by 2018	Scenario V 71 by 2022
by 2047	0.91	0.87	0.76	0.55	0.27
by 2072	0.98	0.97	0.90	0.81	0.35

Source: Shripad Tuljapurkar, Ronald Lee and Michael Anderson. "Effects of Changing the Social Security Retirement Age on the Dynamics of the OASDI Program," paper presented at the Social Security Advisory Board Forum,, October 13, 1998.

The Tuljapurkar paper also analyzes the effects of a more rapid shift in the actual retirement age towards the new normal retirement age, possibly accompanied by an increase in the number of people who qualify for disability insurance. Again, various scenarios are considered and their effects on the probability of insolvency are examined. Working longer has a larger impact on insolvency in the first 25-year period than in the longer term. But if a sizable proportion of those who would have retired at age 62 qualify for disability insurance rather than continue to work, a substantial part of the short-term gain from deferring retirement is lost as well.

VI. Conclusion

Raising the Social Security retirement age beyond the changes already in the law would have significant implications for individuals, employers, and the national economy. Policy makers would need to weigh the advantages for the Social Security system and for the economy against the burdens placed on older people who cannot work longer or would prefer not to do so. Interactions with other social programs, such as with the Disability Insurance and Supplemental Security Income programs, and with the private sector, including the demand for older workers, would have to be considered.

The first forum sponsored by the Social Security Advisory Board on the topic of raising the Social Security retirement age presented the background for a continuing discussion of issues related to increasing the age at which people can receive full or reduced Social Security benefits. The analysis contained in the papers and presentations showed both the positive and the negative aspects of giving people incentives to work longer, but it is clear that the financing of Social Security must adapt to longer lifetimes and fewer workers to support each retiree. Whether policy makers want to change the incentives regarding the age at retirement, and how much people would respond to those changed incentives, remain topics for additional analysis and thoughtful discussion.

References

- Americans Discuss Social Security, "Making Hard Choices: Public Opinion on Options for Social Security," poll conducted by Princeton Survey Research Associates, available on www.americansdiscuss.org/poll_data/policyrpt.html, September 1998.
- Burkhauser, Richard, Kenneth A. Couch, and John W. Phillips, "Who Takes Early Social Security Benefits? The Economic and Health Characteristics of Early Beneficiaries," *The Gerontologist*, Vol. 36, No. 6, 1996, 787-799.
- Crimmins, Eileen M., Sandra L. Reynolds, and Yasuhiko Saito, "Trends in Health and Ability to Work among the Older Working-Age Population," *Journal of Gerontology*, Vol. 54B, No. 1, 1999, S31-S40.
- Congressional Budget Office, "Raising the Earliest Eligibility Age for Social Security Benefits," CBO Papers, January 1999.
- Dwyer, Debra S. and Jiangting Hu, "The Relationship between Retirement Expectations and Realizations: The Role of Health Shocks in Unrealized Expectation," paper presented at the 1998 Pension Research Council Symposium, "Forecasting Retirement Needs and Retirement Wealth," April 1998.
- Friedberg, Leora. "The Labor Supply Effects of the Social Security Earnings Test," presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998.
- Friedberg, Leora. "The Social Security Earnings Test and the Labor Supply of Older Men," in *Tax Policy and the Economy*, Vol. 12, edited by James Poterba, MIT Press, 1998.
- Gendell, Murray. "Trends in Retirement Age in Four Countries, 1965-1995," *Monthly Labor Review*, August 1998, 20-30.
- Gruber, Jonathan and David A. Wise, editors, *Social Security Programs and Retirement Around the World*, Chicago: The University of Chicago Press, 1999.
- Quinn, Joseph F. "Retirement Patterns and Bridge Jobs in the 1990s," presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998, and EBRI Issue Brief No. 206, February 1999.
- Samwick, Andrew A. "New Evidence on Pensions, Social Security, and the Timing of Retirement," presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998, and in *Journal of Public Economics*, Vol. 70, November 1998, 207-236.
- Social Security Advisory Board, *Social Security: Why Action Should Be Taken Soon*, July 1998.
- Tuljapurkar, Shripad, Ronald Lee, and Michael Anderson. "Effects of Changing the Social Security Retirement Age on the Dynamics of the OASDI Program," presented at the Social Security Advisory Board Forum, "Implications of Raising the Social Security Retirement Age," October 13, 1998.
- Uccello, Cori E., "Factors Influencing Retirement: Their Implications for Raising Retirement Age." AARP Public Policy Institute Paper #9810, October 1998.

BIOGRAPHICAL INFORMATION ON PARTICIPANTS

RICHARD V. BURKHAUSER

Richard V. Burkhauser is chair of the Department of Policy Analysis and Management and the Sarah Gibson Blanding Professor of Policy Analysis in the College of Human Ecology at Cornell University. Burkhauser has published widely in the area of United States and European social security retirement and disability policy. He was a member of the Technical Panel on Trends and Issues in Retirement Saving of the 1994-1996 Advisory Council on Social Security and the 1994-1996 National Academy of Social Insurance Panel on Disability Policy Reform. He received his Ph.D. in economics from the University of Chicago.

GARY BURTLESS

Gary Burtless is a Senior Fellow in the Economic Studies program at the Brookings Institution in Washington, D.C. He does research on issues connected with public finance, aging, saving, labor markets, income distribution, social insurance, and the behavioral effects of government tax and transfer policy. He is the author of numerous books and articles on the effects of Social Security, welfare, unemployment insurance, and taxes. His most recent book is *Globaphobia: Confronting Fears about Open Trade*. His recent research has focused on sources of growing wage and income inequality in the United States, the influence of international trade on income inequality, the job market prospects of public aid recipients, reform of social insurance in developing countries and formerly Communist economies, and the implications of privatizing the American Social Security system.

Burtless graduated from Yale College in 1972 and earned a Ph.D. in economics from the Massachusetts Institute of Technology in 1977. Before coming to Brookings in 1981, he served as an economist in the Office of the Secretary of Labor and the U.S. Department of Health, Education, and Welfare. In 1993 he was Visiting Professor of Public Affairs at the University of Maryland, College Park.

LEORA FRIEDBERG

Leora Friedberg is an Assistant Professor of Economics at the University of California, San Diego. She is currently on leave from UCSD and is spending the year on an Aging and Health Economics Fellowship at the National Bureau of Economic Research in Cambridge, Massachusetts. Friedberg's broad fields of interest are public and labor economics. Her research has focused on work and retirement behavior of older workers, including papers on the Social Security earnings test, the impact of the Old Age Assistance Program established with Social Security in 1935, and the effect of technological progress and computerization on older workers. Friedberg received her Ph.D. from the Massachusetts Institute of Technology and won the National Tax Association Dissertation Award.

JONATHAN GRUBER

Jonathan Gruber is a Professor of Economics at the Massachusetts Institute of Technology, where he has taught since 1992. He is also the Director of the Program on Children at the National Bureau of Economic Research, where he is a Research Associate. He is a co-editor of the *Journal of Health Economics*, and an Associate Editor of the *Journal of Public Economics*.

Gruber received his B.S. in Economics from MIT, and his Ph.D. in Economics from Harvard. He has received an Alfred P. Sloan Foundation Research Fellowship, a FIRST award from the National Institute on Aging, and the Kenneth Arrow Award for the Best Paper in Health Economics in 1994. He was also one of 15 scientists nationwide to receive the Presidential Faculty Fellow Award from the National Science Foundation in 1995. During the 1997-1998 academic year, Gruber was on leave as Deputy Assistant Secretary for Economic Policy at the Treasury Department.

Gruber's research focuses on the areas of public finance and health economics. His recent areas of particular interest include the economics of employer-provided health insurance, the efficiency of our current system of delivering health care to the indigent, the costs and benefits of providing social insurance for adverse events such as unemployment and disability, and the effect of the Social Security program on retirement behavior.

MARK D. HAYWARD

Mark Hayward is a Professor of Sociology and Director of Graduate Studies at The Pennsylvania State University and Director of the Statistics Core for Penn State's Population Research Institute. He has over fifteen years of experience in conducting large scale, federally and privately supported research. His work is in the forefront in examining the influence of career dynamics on the retirement and health experiences of the American older population. Presently, he is engaged in an NIA-supported study of how social class circumstances from childhood through late life combine to influence the morbidity and mortality experiences of older Americans. Other current research addresses how features of the work environment influence disability through the onset of disease and impairment, racial inequality in active life expectancy, the interplay of spouses' chronic health problems and retirement decisions, population heterogeneity in mortality, and the consequences of industrial restructuring for the work-to-retirement transition in metropolitan and non-metropolitan labor markets.

Hayward's recent publications have focused on the role of health as a determinant of inequality in the retirement life cycle, the relationship between career trajectory and the retirement process, how morbidity and mortality intersect to influence active life expectancy, social inequality in active life expectancy, and the consequences of chronic disease for active life.

DIANE J. MACUNOVICH

Diane Macunovich is a 1966 graduate of MIT who received her Ph.D. in economics from the University of Southern California in 1989. She has been an assistant/associate professor of Economics at Williams College since 1989 (Associate since 1994), where she specializes in demographic economics and in labor economics. Prior to her graduate studies in economics, Macunovich worked for seventeen years as an economic and demographic analyst for clients in both the public and private sectors in Canada, the U.S., the U.K. and Iran. She has used applied econometric techniques on a number of projects including an analysis of the effects of life cycle demographic decisions on the economic well-being of various birth cohorts in the U.S., an analysis of the youth labor market, and an analysis of the response of fertility to economic conditions.

Her current projects concern relative cohort size effects on consumption, male wages, female labor force participation, fertility and educational attainment in the United States. Macunovich recently served on two technical panels appointed by the 1994 Social Security Advisory Council, reviewing the Social Security system in the United States.

RUDOLPH G. PENNER

Rudolph Penner is a Senior Fellow at the Urban Institute and holds the Arjay and Frances Miller chair in public policy. Previously, he was a Managing Director of the Barents Group, a KPMG Company. He was Director of the Congressional Budget Office from 1983 to 1987. From 1977 to 1983, he was a Resident Scholar at the American Enterprise Institute. Previous posts in government include Assistant Director for Economic Policy at the Office of Management and Budget, Deputy Assistant Secretary for Economic Affairs at the Department of Housing and Urban Development, and Senior Staff Economist at the Council of Economic Advisors. Before 1975, Mr. Penner was a professor of economics at the University of Rochester.

He is past President of the National Economists Club, and in 1989, he was elected to the Board of Directors of NABE and also, received the Abramson Prize for the best article published in 1988-89 in Business Economics.

Mr. Penner's undergraduate degree is from the University of Toronto and his Ph.D. in economics is from The Johns Hopkins University. He is the author of numerous books, pamphlets and articles on tax and spending policy and has authored columns for various newspapers including the New York Times, Washington Post, and Los Angeles Times.

JOHN RUST

John Rust is Professor of Economics at Yale University. Rust received his Ph.D. from the Massachusetts Institute of Technology in 1983, specializing in applied econometrics. His research has focused on the development of computationally tractable methods for empirically modeling dynamic decision making under uncertainty. In a series of publications Rust has demonstrated that these discrete dynamic programming models provide very accurate predictions of actual human decision making in a variety of contexts. The Econometric Society awarded him the Ragnar Frisch Medal in 1992 for his first empirical application of the method. Over the last seven years Rust has focused on applying these methods to the empirical analysis of retirement behavior.

Rust is currently working on building a comprehensive integrated model of social insurance at the end of the life cycle for use in policy evaluation. Given the rapid growth in the Social Security disability program, his most recent work has focused on integrating disability insurance into a model of retirement behavior, and understanding the impacts of the disability appeals process modeled as a "game" between applicants and the government.

Rust served as an advisor to the Steering Committee that designed the Health and Retirement Survey (HRS), which will represent the key source of data for research on health retirement issues in the coming decade. He was invited to present the Lief Johansen lectures at the University of Oslo in 1991, and a lecture series on "Pensions and the Labor Market" at the Tinbergen Institute in December 1993. Rust was selected as an Alfred Sloan Fellow in 1988, a Fellow at the Hoover Institution in 1991, and a Fellow of the Econometric Society in 1993. He is a co-editor of the *Journal of Applied Econometrics* and an associate editor of *Econometrica* and several other journals. Rust has served as a member of the Economics Panel of the National Science Foundation and the Committee on National Statistics of the National Academy of Science, and as a member of the Panel on Retirement Income Modeling. He is currently a member of the Social Security Advisory Board's 1999 Technical Panel on Assumptions and Methods.

JOSEPH QUINN

Joseph Quinn is a professor of economics at Boston College. His research focuses on the economics of aging, with emphases on the economic status of the elderly, the determinants of the individual retirement decision and the patterns of labor force withdrawal among older Americans. He co-chaired the Technical Panel on Trends and Issues in Retirement Savings for the 1994-1996 Social Security Advisory Council. He has a B.A. from Amherst College and a doctorate in economics from Massachusetts Institute of Technology, and has taught at Boston College since 1974. He was chair of the economics department from 1988 to 1994, and is currently Boston College's NCAA Faculty Athletics Representative.

DALLAS SALISBURY

Dallas Salisbury is President of the Employee Benefit Research Institute (EBRI) and the EBRI Education and Research Fund, founded in 1978. Prior to EBRI, Mr. Salisbury was an Assistant Executive Director of the Pension Benefit Guaranty Corporation. He was an Executive Assistant to the Administration of Pension and Welfare Benefit Programs at the U.S. Department of Labor and an Acting Assistant Administrator for Policy Planning and Research. Mr. Salisbury played a major role in the implementation of the Employee Retirement Income Security Act of 1974 (ERISA). He was a founding member of the National Academy of Social Insurance and served on its Board of Directors from 1993 to 1997. He recently served on the Academy's study panel on Privatization of Social Security. He is a Fellow of the National Academy of Human Resources and a member of the National Commission on Retirement Policy. He received his Masters Degree in public administration from the Maxwell School at Syracuse University.

ANDREW A. SAMWICK

Andrew Samwick is an assistant professor of economics at Dartmouth College and a faculty research fellow of the National Bureau of Economic Research. He is currently a member of the Social Security Advisory Board's 1999 Technical Panel on Assumptions and Methods. He received his Ph.D. in economics from the Massachusetts Institute of Technology and his A.B., summa cum laude, from Harvard University, also in economics. He has served as a consultant for the Pension Benefit Guaranty Corporation and the World Bank. His current research interests include pensions and Social Security, executive compensation, taxation, and precautionary saving.

C. EUGENE STEUERLE

Eugene Steuerle is a Senior Fellow at The Urban Institute and author of a weekly column, "Economic Perspective," for *Tax Notes* Magazine. At the Institute he has conducted extensive research on budget and tax policy, Social Security, health care and welfare reform. Steuerle's publications include seven books, and more than 100 reports and articles, 400 columns and 40 Congressional testimonies or reports. Recent books include *The Government We Deserve* and *Retooling Social Security for the Twenty-First Century*.

Earlier in his career he served in various positions in the Treasury Department under four different Presidents and was eventually appointed Deputy Assistant Secretary of the Treasury for Tax Analysis. Between 1984 and 1986 he served as Economic Coordinator and original organizer of the Treasury's tax reform effort.

Steuerle is the Chair of the Social Security Advisory Board's 1999 Technical Panel on Assumptions and Methods. He serves or has recently served as an advisor, consultant, or board member to or for a number of groups including the National Commission on Retirement Policy, the U.S. General Accounting Office's Advisory Panel on Social Security, the American Tax Policy Institute, the Joint Committee on Taxation, retreats of the Senate Finance Committee and the House Ways and Means Committee, the International Monetary Fund, a Technical Panel to the Social Security Advisory Council, and the National Academy on Aging. As a member of the International Monetary Fund Fiscal Affairs Advisory Committee, Steuerle also has undertaken tax assistance missions to China, while the government of Barbados recently undertook a tax reform effort modeled after a report that he co-authored as head of another mission. Previous positions also include Federal Executive Fellow at the Brookings Institution, Resident Fellow at the American Enterprise Institute, and President of the National Economists' Club Education Foundation. He is cited frequently in newspapers and news magazines.

LAWRENCE H. THOMPSON

Lawrence Thompson is currently Senior Fellow at the Urban Institute in Washington, D.C., a nonprofit, nonpartisan institution devoted to the analysis of public policy issues. Thompson specializes in public pension design and administration. His current work focuses on the future of the U.S. public pension system and on improving pension administration around the world, particularly Russia. He is a consultant for the World Bank and the International Labor Office and has just finished analyzing general economic aspects of public pension design for the International Social Security Association.

Thompson was Principal Deputy Commissioner of the U.S. Social Security Administration from June 1993 through December 1995. There he was responsible for both program policy development and operational management of the nation's largest income security program.

Thompson has spent his career dealing with education, income security and health issues. From 1989 through 1993, he was Assistant Comptroller General of the United States at the U.S. General Accounting Office (GAO) and Chief Economist of the GAO from 1983 to 1988. Prior experience included positions at the Department of Health and Human Services, the National Institute of Education, and the U.S. Office of Economic Opportunity.

He received a Bachelor of Science degree from Iowa State University, a Masters of Business Administration from the Wharton School of the University of Pennsylvania, and holds a Ph.D. in Economics from the University of Michigan. He is currently Secretary of the National Academy of Social Insurance.

SHRIPAD TULJAPURKAR

Shripad Tuljapurkar is a demographer and ecologist, and is President of Mountain View Research Inc., a company that does research and software development in the population sciences. Tuljapurkar is also a Consulting Professor at Stanford University and a Member of the Center for the Economics and Demography of Aging at the University of California, Berkeley. He has held full-time academic appointments at both these universities. Tuljapurkar is the Chair of a new committee of the International Union for the Scientific Study of Population, focusing on the topic "Population Age Structure and Related Policy Issues." He is the 1996 recipient of the Mindel Sheps award of the Population Association of America for work in formal demography and demographic methodology, and was named a John Simon Guggenheim Foundation fellow for 1998-1999.

Tuljapurkar's research covers work on areas relevant to the Social Security system, including analyses of the determinants and dynamics of mortality change, the dynamics of populations subject to stochastic and nonlinear changes in vital rates, the stochastic forecasting of populations structured by age and sex, and the analysis of risk in multiple-objective decision problems. Tuljapurkar has served on numerous scientific committees: he was a member of the Social Sciences and Population Study Section of the National Institutes of Health from 1987 to 1992, and of the Population Biology panel of the National Science Foundation from 1992 to 1995. He is on the editorial boards of the journals *Mathematical Population Studies and Anthropological Science*, and previously served for four years on the editorial

DAVID M. WALKER

In November 1998, David Walker became the Comptroller General of the United States at the General Accounting Office. Prior to that appointment, he was a Partner and Managing Director of Arthur Andersen's Human Capital Services practice and a member of the Board of Arthur Andersen Financial Advisors, a registered investment advisor. His responsibilities spanned the audit, tax, legal and consulting practices of the Firm.

Before joining Arthur Andersen LLP, Walker held a variety of executive and policy making positions in the Federal government, including serving as head of two of the three U.S. government agencies that administer the Employee Retirement Income Security Act of 1974 (ERISA). He was one of two Public Trustees for the U.S. Social Security and Medicare Trust Funds from 1990 until 1995, serving in this part-time Trustee position while he was a Partner with Arthur Andersen.

Walker has leadership positions in a number of professional, trade and other organizations. He has won a number of industry awards and is a frequent speaker, author, and Congressional witness. Walker is the author of *Retirement Security: Understanding and Planning Your Financial Future*. He frequently serves on a number of national public policy commissions and task forces. For example, he was a member of the Center for Strategic and International Studies' National Commission of Retirement Policy. He previously served on the Committee for Economic Development's Social Security and Private Pension Reform Task Forces.

Walker is a certified public accountant and a registered investment advisor. He has a B.S. in Accounting from Jacksonville University and an S.M.G. Certificate in Public Policy from the John F. Kennedy School of Government at Harvard.

CAROLYN L. WEAVER

Carolyn Weaver is Resident Scholar and Director of Social Security and Pension Studies at the American Enterprise Institute. She is the author of *Crisis in Social Security: Economic and Political Origins* and the editor of two AEI books, *Social Security's Looming Surpluses: Prospects and Implications* and *Disability and Work: Incentives, Rights, and Opportunities*, and has written widely on Social Security, disability policy, and political economy. Her editorials have appeared in leading newspapers. Weaver is presently completing a book on Social Security reform.

From 1981 to 1984, Weaver served as chief professional staff member on Social Security for the U.S. Senate Committee on Finance, under the Chairmanship of Senator Robert Dole, and during that time also served as Senior Advisor to the 1983 National Commission on Social Security Reform

(the “Greenspan Panel”). Since then, she has served on several public advisory councils, including most recently the 1994-1996 Social Security Advisory Council and the U.S. Social Security Advisory Board. She is presently serving on the national advisory board of “Americans Discuss Social Security,” a major project of the Pew Charitable Trust. Weaver has testified frequently on Capitol Hill on issues pertaining to social security and the budget, social security solvency and reform, disability policy, and welfare reform.

Before joining AEI, Weaver was a Senior Research Fellow at the Hoover Institution at Stanford University. She has also been a member of the economics faculties of Tulane University and Virginia Polytechnic Institute, where she received her Ph.D.

JOHN C. WILKIN

John Wilkin, a Fellow of the Society of Actuaries, has been a Senior Actuary at the Actuarial Research Corporation for the last 10 years. He was formerly a Supervisory Actuary in the Office of the Actuary at the Social Security Administration, where he worked for 18 years. While at Social Security, he was responsible for the demographic and economic projections that were used in the annual Trustees Reports. He published a paper in the *Transactions of the Society of Actuaries* on the “Recent Trends in the Mortality of the Aged.” Currently, he specializes in three major areas: managed health care, long-term care insurance, and social insurance. His work in social insurance has included work for the World Bank and the U.S. Agency for International Development in pension reform and health care reform in ten countries. In addition, under a grant from the National Institute on Aging, he is currently developing an actuarial model on pension reform for the U.S. OASDI program.

THE SOCIAL SECURITY ADVISORY BOARD

Establishment of the Board

In 1994, when the Congress passed legislation establishing the Social Security Administration as an independent agency, it also created a 7-member bipartisan Advisory Board to advise the President, the Congress, and the Commissioner of Social Security on matters relating to the Social Security and Supplemental Security Income (SSI) programs. The conference report on this legislation passed both Houses of Congress without opposition. President Clinton signed the Social Security Independence and Program Improvements Act of 1994 into law on August 15, 1994 (P.L. 103-296).

Advisory Board members are appointed to 6-year terms, made up as follows: 3 appointed by the President (no more than 2 from the same political party); and 2 each (no more than one from the same political party) by the Speaker of the House (in consultation with the Chairman and Ranking Minority Member of the Committee on Ways and Means) and by the President pro tempore of the Senate (in consultation with the Chairman and Ranking Minority member of the Committee on Finance). Presidential appointees are subject to Senate confirmation.

Board members serve staggered terms. The statute provides that the initial members of the Board serve terms that expire over the course of the first 6-year period. The Board currently has 2 vacancies.

The Chairman of the Board is appointed by the President for a 4-year term, coincident with the term of the President, or until the designation of a successor.

Members of the Board

Stanford G. Ross, Chair

Stanford Ross is a partner in the law firm of Arnold & Porter, Washington, D.C. He has dealt extensively with public policy issues while serving in the Treasury Department, on the White House domestic policy staff, as Commissioner of Social Security, and as Public Trustee of the Social Security and Medicare Trust Funds. He is a Founding Member and a former Director and President of the National Academy of Social Insurance. He has provided technical assistance on Social Security and tax issues under the auspices of the International Monetary Fund, World Bank, and U.S. Treasury Department to various foreign countries. He has taught at the law schools of Georgetown University, Harvard University, New York University, and the University of Virginia, and has been a Visiting Fellow at the Hoover Institution, Stanford University. He is the author of many papers on Federal taxation and income security subjects.

Jo Anne Barnhart

Ms. Barnhart is a political and public policy consultant to State and local governments on welfare and social services program design, policy, implementation, evaluation, and legislation. From 1990 to 1993 she served as Assistant Secretary for Children and Families, Department of Health and Human Services, overseeing more than 65 programs, including Aid to Families with Dependent Children, the Job Opportunities and Basic Skills Training program, Child Support Enforcement, and various child care programs. Previously, she was Minority Staff Director for the U.S. Senate Committee on Governmental Affairs, and legislative assistant for domestic policy issues for Senator William V. Roth. Most recently, Ms. Barnhart served as Political Director for the National Republican Senatorial Committee.

Lori L. Hansen

Ms. Hansen is a Consulting Policy Analyst for the National Academy of Social Insurance. She served as a Policy Analyst for the Study Group on Social Security. She was a Technical Assistant to former Social Security Commissioner Robert Ball in his capacity as a member of the National Commission on Social Security Reform. She was also a Special Assistant to the President and Director of Government Affairs at the Legal Services Corporation. In addition, Ms. Hansen was a senior professional staff member on the U.S. Senate Committee on Labor and Human Resources, Subcommittee on Employment, Poverty, and Migratory Labor, and was legislative assistant to Senator Gaylord Nelson, then Chairman of the Subcommittee on Social Security of the Senate Committee on Finance. She also served on the professional staff of the Senate Select Committee on Nutrition and Human Needs.

Martha Keys

Martha Keys served as a U.S. Representative in the 94th and 95th Congresses. She was a member of the House Ways and Means Committee and its Subcommittees on Health and on Public Assistance and Unemployment Compensation. Ms. Keys also served on the Select Committee on Welfare Reform. She served in the executive branch as Special Advisor to the Secretary of Health, Education, and Welfare and as Assistant Secretary of Education. She was a member of the 1983 National Commission (Greenspan) on Social Security Reform. Martha Keys is currently consulting on public policy issues. She has held executive positions in the non-profit sector, lectured widely on public policy in universities, and served on the National Council on Aging and other Boards. Ms. Keys is the author of *Planning for Retirement: Everywoman's Legal Guide*.

Sylvester J. Schieber

Mr. Schieber is Director of the Research and Information Center at Watson Wyatt Worldwide, where he specializes in analysis of public and private retirement policy issues and the development of special surveys and data files. From 1981 to 1983 Mr. Schieber was the Director of Research at the Employee Benefit Research Institute. Earlier, he worked for the Social Security Administration as an economic analyst and as Deputy Director at the Office of Policy Analysis. Mr. Schieber is the author of numerous journal articles, policy analysis papers, and three books including: *Retirement Income Opportunities in An Aging America: Coverage and Benefit Entitlement*, and *Social Security: Perspectives on Preserving the System*. He served on the 1994-1996 Advisory Council on Social Security. He received his Ph.D. from the University of Notre Dame.

Members of the Staff

Margaret S. Malone, Staff Director

Joyce Manchester

Beverly Rollins

George Schuette

Wayne Sulfridge

Jean Von Ancken

David Warner

Social Security Advisory Board
400 Virginia Avenue, SW
Suite 625
Washington, D.C. 20024
Tel: (202) 475-7700
Fax: (202) 475-7715
Website: www.ssab.gov

